

Notice of Allowability

Application No.

09/733,303

Examiner

Joseph S. Del Sole

Applicant(s)

MOORE, SAMUEL EARL

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the responses of 9/12/03 and 12/12/03.
2. ☒ The allowed claim(s) is/are 1-4, 6-10, 12-15, 17-19, 21, 23 and 24.
3. ☒ The drawings filed on 08 December 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 2/5/04.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Linda Russell on 2/5/04.

The application has been amended as follows:

in the claims: amend claim 12 and cancel claim 25 as follows:

Claim 1 (previously presented): A spinnerette assembly for forming one or more composite hollow fibers comprising:

a unitary spinnerette body;

at least one extrusion orifice formed in said unitary spinnerette body;

a hollow needle being affixed in a needle mounting hole formed in said unitary spinnerette body and wherein said needle mounting hole receives a portion of said hollow needle,

said hollow needle extending through each said at least one extrusion orifice in a concentric manner to define at least one annular passage around said needle in said at least one extrusion orifice;

a bore forming fluid passage formed in said unitary spinnerette body, said bore forming fluid passage communicating with the interior of each said hollow needle;

at least one core forming material passage formed in said unitary spinnerette body, wherein each said at least one core forming material passage comprises a core forming material inlet port extending from a surface of said spinnerette body to an interior of said unitary spinnerette body and at least one transverse passage extending from said core forming material port to each said at least one annular passage; and

a sheath forming material passage formed in said unitary spinnerette body wherein said sheath forming material passage comprises a sheath forming material port extending from a surface of said unitary spinnerette body to each said annular passage.

Claim 2 (previously presented): A spinnerette assembly as recited in claim 1, wherein said at least one transverse passage is a backcut portion of said at least one core forming material passage that entirely surrounds said hollow needle in a continuous manner and is in communication with said at least one extrusion orifice.

Claim 3 (previously presented): A spinnerette assembly as recited in claim 1, wherein each said core forming material port extends substantially parallel to said at least one extrusion orifice and said at least one transverse passage extends substantially perpendicular to said core forming material port.

Claim 4 (previously presented) A spinnerette assembly as recited in claim 1, wherein said spinnerette assembly comprises said unitary spinnerette body and a bottom plate separated from each other by a shim disposed between said unitary spinnerette body and said bottom plate.

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Claim 5 (cancelled)

Claim 6 (previously presented): A spinnerette assembly as recited in claim 4 wherein each said needle mounting hole is in communication with said bore forming fluid inlet port at a surface of said unitary spinnerette body via said bore forming fluid passage.

Claim 7 (previously presented): A spinnerette as recited in Claim 6, wherein said bore forming fluid passage comprises a first bore forming fluid conduit coaxial with said needle and in communication with said needle and a second bore forming fluid conduit that extends at an angle with respect to said first bore forming fluid conduit from said bore forming fluid conduit to a surface of said unitary spinnerette body.

Claim 8 (previously presented): A spinnerette assembly as recited in Claim 4, wherein said extrusion orifice extends through portions of said unitary spinnerette body and said bottom plate.

Claim 9 (previously presented): A spinnerette assembly as recited in Claim 4, wherein said core forming material passage is formed in said unitary spinnerette body.

Claim 10 (previously presented): A spinnerette assembly as recited in claim 4, wherein a gap between said unitary spinnerette body and said bottom plate defines a portion of said sheath forming material passage.

Claim 11 (cancelled)

Claim 12 (currently amended): A spinnerette assembly for forming one or more multiple-sheath composite hollow fibers comprising:

- a unitary spinnerette body,

- at least one extrusion orifice formed in said unitary spinnerette body;

a hollow needle being affixed in a needle mounting hole formed in said unitary spinnerette body and wherein said needle mounting hole receives a portion of said needle,

said hollow needle extending through each said at least one extrusion orifice in a concentric manner to define at least one annular passage around said needle in said at least one extrusion orifice;

a bore forming fluid passage formed in said unitary spinnerette body, said bore forming fluid passage communicating with the interior of each said needle;

at least one core forming material passage formed in said unitary spinnerette body, wherein each said at least one core forming material passage comprises a core forming material inlet port extending from a surface of said unitary spinnerette body to an interior of said unitary spinnerette body and at least one transverse passage extending from said core forming material port to each said at least one annular passage; and

a first sheath forming material passage, wherein said first sheath forming material passage comprises a first sheath forming material port extending from a surface of said unitary spinnerette body to each said at least one annular passage

a second sheath forming material passage, wherein said second sheath forming material passage comprises a second sheath forming material port extending from a surface of said unitary spinnerette body assembly to each said annular passage.

Claim 13 (original): A spinnerette assembly as recited in Claim 12, wherein said transverse passage is a backcut portion of said core forming material passage that

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entirely surrounds said needle in a continuous manner and is in communication with said extrusion orifice.

Claim 14 (original): A spinnerette assembly as recited in Claim 12, wherein each said core forming material port extends substantially parallel to said extrusion orifice and said transverse passage extends substantially perpendicular to said core forming material port.

Claim 15 (previously presented): A spinnerette assembly as recited in Claim 12, wherein said spinnerette assembly comprises a unitary spinnerette body, a middle plate, and a bottom plate separated by a first shim disposed between said unitary spinnerette body and said middle plate, and a second shim disposed between said middle plate and said bottom plate.

Claim 16 (canceled)

Claim 17 (previously presented): A spinnerette assembly as recited in claim 15 wherein each said needle mounting hole is in communication with said bore forming fluid inlet port at a surface of said unitary spinnerette body via a bore forming fluid passage.

Claim 18 (previously presented): A spinnerette as recited in Claim 17, wherein said bore forming fluid passage comprises a first bore forming fluid conduit coaxial with said needle and in communication with said needle and a second bore forming fluid conduit that extends at an angle with respect to said first bore forming fluid conduit from said bore forming fluid conduit to a surface of said unitary spinnerette body.

Claim 19 (previously presented): A spinnerette assembly as recited in Claim 15, wherein said extrusion orifice extends through portions of said unitary spinnerette body, said middle plate, and said bottom plate.

Claim 20 (cancelled)

Claim 21 (previously presented): A spinnerette assembly as recited in claim 15, wherein a gap between said unitary spinnerette body and said middle plate defines a portion of said first sheath forming material passage, and the gap between said middle plate and said bottom plate defines a portion of said second sheath forming material passage.

Claim 22 (cancelled)

Claim 23 (previously presented): A spinnerette assembly as recited in claim 21 wherein said second sheath forming material passage comprises said second sheath forming material inlet port situated at an exterior surface of said bottom plate in communication with a channel formed in said bottom plate, said channel being in communication with the gap defined between said bottom plate and said middle plate.

Claim 24 (previously presented): A spinnerette assembly as recited in claims 1 or 12 comprising multiple transverse passages and extrusion orifices for each core forming material port.

Claim 25 (cancelled)

2. The following is an examiner's statement of reasons for allowance: the prior art of record fails to teach or suggest the spinnerette assembly as claimed including a sheath forming material passage formed in the unitary spinnerette body wherein the sheath

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forming material passage has a sheath forming material port extending from a surface of the unitary spinnerette body to each annular passage.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Terminal Disclaimer

3. The terminal disclaimer filed on 9/12/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on Application Number 09/733,304 has been reviewed and is accepted.

The terminal disclaimer has been recorded.

Correspondence

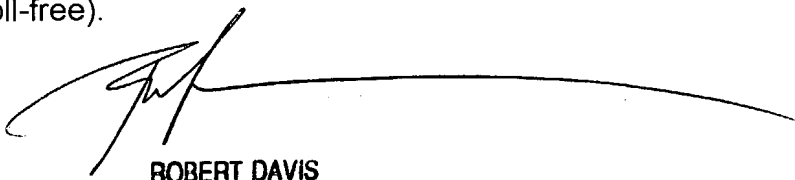
Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Joseph S. Del Sole whose telephone number is (571) 272-1130. The examiner can normally be reached on Monday through Friday from 8:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Wanda Walker, can be reached at (571) 272-1151. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for both non-after finals and for after finals.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from the either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

Joseph S. Del Sole

J.S.D.
February 5, 2004


ROBERT DAVIS
PRIMARY EXAMINER
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2/5/04